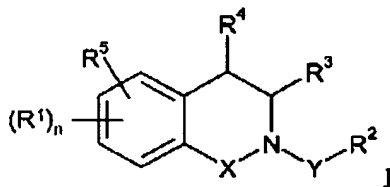


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Claim Listing

1. (Currently Amended) A compound of the formula:



or a pharmaceutically acceptable salt,

wherein:

n is from 0 to 3;

X is $-CR^aR^b-$ wherein R^a and R^b each independently are hydrogen or alkyl;

--- is an optional bond;

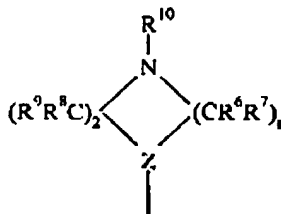
Y is $-SO_2-$;

each R^1 independently is halo, alkyl, haloalkyl, hydroxy, nitro, alkoxy, cyano, $-S(O)_q-R^c$, $-NR^eR^f$, or $-C(=O)-NR^eR^f$, wherein q is from 0 to 2 and R^c and R^f each independently are hydrogen or alkyl;

R^2 is aryl phenyl or naphthyl optionally substituted with halo, alkoxy, haloalkyl, alkyl, alkylsulfonyl, $-C(O)-NH_2$ or $-NH-C(O)-NH_2$;

R^3 and R^4 each independently are hydrogen or alkyl; and

R^5 is at the 5- or 6- position of the isoquinoline ring system and is of the formula:



wherein:

Z is $-N-$;

r is 2; and

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R^6 , R^7 , R^8 , R^9 and R^{10} each independently are hydrogen or alkyl.

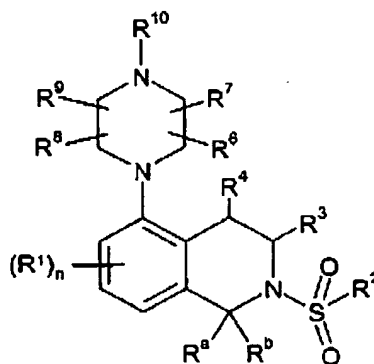
2. (Original) The compound of claim 1, wherein R^5 is located at the 5-position of the isoquinoline ring system.
3. (Canceled)
4. (Canceled)
5. (Canceled)
6. (Previously presented) The compound of claim 1, wherein R^a and R^b are hydrogen.
7. (Canceled)
8. (Previously presented) The compound of claim 1, wherein R^2 is optionally substituted phenyl.
9. (Previously presented) The compound of claim 1, wherein R^2 is optionally substituted naphthalenyl.
10. (Currently amended) The compound of claim 8, wherein R^2 is selected from the group consisting of phenyl, 2-halophenyl, 3-halophenyl, 4-halophenyl, 2,3-dihalophenyl, 2,4-dihalophenyl, 3,4-dihalophenyl, 2,5-dihalophenyl, 3,5-dihalophenyl, 2,6-dihalophenyl, 2-haloalkylphenyl, 3-haloalkylphenyl, 4-haloalkylphenyl, 2,3-dihaloalkylphenyl, 2,4-dihaloalkylphenyl, 3,4-dihaloalkylphenyl, 2,5-dihaloalkylphenyl, 3,5-dihaloalkylphenyl, 2,6-dihaloalkylphenyl, 2-alkoxyphenyl, 3-alkoxyphenyl, 4-alkoxyphenyl, 2,3-dialkoxyphenyl, 2,4-dialkoxyphenyl, 3,4-dialkoxyphenyl, 3,5-dialkoxyphenyl, 2,5-dialkoxyphenyl, 2,6-dialkoxyphenyl, 2-alkylphenyl, 3-alkylphenyl,

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4-alkylphenyl, 2,3-dialkylphenyl, 2,4-dialkylphenyl, 3,4-dialkylphenyl, 3,5-dialkylphenyl, 2,5-dialkylphenyl, and 2,6-dialkylphenyl.

11. (Original) The compound of claim 9, wherein R^2 is naphthalene-1-yl or naphthalene-2-yl.
12. (Previously presented) The compound of claim 1, wherein n is 0.
13. (Previously presented) The compound of claim 1, wherein R^3 and R^4 are hydrogen.
14. (Canceled)
15. (Original) The compound of claim 14, wherein R^6 , R^7 , R^8 , R^9 and R^{10} are hydrogen.
16. (Original) The compound of claim 14, wherein R^6 , R^7 , R^8 and R^9 are hydrogen and R^{10} is alkyl.
- 17-27. (Canceled)
28. (Canceled)
29. (Original) The compound of claim 1, wherein said compound is of the formula:

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and wherein n , R^1 , R^2 , R^3 , R^4 , R^6 , R^7 , R^8 , R^9 , R^{10} , R^a and R^b are as defined in claim 1.

30. (Canceled)

31. (Currently Amended) ~~The compound of claim 1, wherein said A~~
 compound is selected from the group consisting of:

- 2-benzenesulfonyl-5-piperazin-1-yl-1,2,3,4-tetrahydroisoquinoline;
- 2-benzenesulfonyl-5-(4-methylpiperazin-1-yl)-1,2,3,4-tetrahydroisoquinoline;
- 2-(4-fluoro-benzenesulfonyl)-5-piperazin-1-yl-1,2,3,4-tetrahydroisoquinoline;
- 2-(4-methoxy-benzenesulfonyl)-5-piperazin-1-yl-1,2,3,4-tetrahydroisoquinoline;
- 2-(3-fluoro-benzenesulfonyl)-5-piperazin-1-yl-1,2,3,4-tetrahydroisoquinoline;
- 2-(3,5-dichloro-benzenesulfonyl)-5-piperazin-1-yl-1,2,3,4-tetrahydroisoquinoline;
- 2-(3,5-bis-trifluoromethyl-benzenesulfonyl)-5-piperazin-1-yl-1,2,3,4-tetrahydroisoquinoline;
- 2-(2,5-dimethoxy-benzenesulfonyl)-5-piperazin-1-yl-1,2,3,4-tetrahydroisoquinoline;
- 2-(3-chloro-4-fluoro-benzenesulfonyl)-5-piperazin-1-yl-1,2,3,4-tetrahydroisoquinoline;
- 2-(2-fluoro-benzenesulfonyl)-5-piperazin-1-yl-1,2,3,4-tetrahydroisoquinoline;
- 2-(2-chloro-benzenesulfonyl)-5-piperazin-1-yl-1,2,3,4-tetrahydroisoquinoline;
- 2-(3-chloro-benzenesulfonyl)-5-piperazin-1-yl-1,2,3,4-tetrahydroisoquinoline;
- 2-(3-methyl-benzenesulfonyl)-5-piperazin-1-yl-1,2,3,4-tetrahydroisoquinoline;
- 2-(2,3-dichloro-benzenesulfonyl)-5-piperazin-1-yl-1,2,3,4-tetrahydroisoquinoline;

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2-(2-chloro-4-fluoro-benzenesulfonyl)-5-piprazin-1-yl-1,2,3,4-tetrahydroisoquinoline;
2-(2,5-dichloro-benzenesulfonyl)-5-piprazin-1-yl-1,2,3,4-tetrahydroisoquinoline;
2-(naphthalene-1-sulfonyl)-5-piprazin-1-yl-1,2,3,4-tetrahydroisoquinoline;
2-(naphthalene-2-sulfonyl)-5-piprazin-1-yl-1,2,3,4-tetrahydroisoquinoline;
2-(2-Methanesulfonyl-benzenesulfonyl)-5-piprazin-1-yl-1,2,3,4-tetrahydroisoquinoline;
3-(5-Piprazin-1-yl-3,4-dihydro-1H-isoquinoline-2-sulfonyl)-benzamide; and
[2-(5-Piprazin-1-yl-3,4-dihydro-1H-isoquinoline-2-sulfonyl)-phenyl]-uracil; and
~~8-(5-Piprazin-1-yl-3,4-dihydro-1H-isoquinoline-2-sulfonyl)-quinoline.~~

32. (Original) A pharmaceutical composition comprising an effective amount of at least one compound of claim 1 in admixture with a pharmaceutically acceptable carrier.

33. (Currently Amended) A method for ~~treating a central nervous system disease state in a subject~~ enhancing cognitive memory in an Alzheimer's patient, said method comprising administering to said ~~subject~~ Alzheimer's patient a therapeutically effective amount of a compound of claim 1.

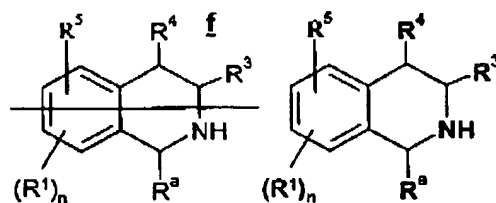
34. (Canceled)

35. (Canceled)

36. (Currently Amended) A method for producing a compound of claim 1, said method comprising:

reacting a compound of the formula:

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wherein n , R^1 , R^a , R^3 , R^4 and R^5 are as recited in claim 1,

with a sulfonyl halide of the formula: R^2-SO_2-G wherein G is halo and R^2
 is as defined in claim 1;

to yield a compound of formula I wherein Y is $-SO_2-$.